

ABSTRACT OF THE DISCLOSURE

This invention relates to therapeutic and diagnostic methods and compositions based on Jagged/Notch proteins and nucleic acids, and on their role in the signaling pathway relating to endothelial cell migration and/or differentiation. In 5 addition, this invention provides a substantially purified Jagged protein, as well as a substantially purified nucleic acid or segment thereof encoding Jagged protein, or a functionally equivalent derivative, or allelic or species variant thereof. Further, this invention provides a substantially purified soluble Jagged protein and a substantially purified nucleic acid encoding same as well as a recombinant cell comprising a nucleic 10 acid encoding a soluble Jagged protein. Soluble Jagged provides further therapeutic and diagnostic methods relating to diseases, disorders, and conditions involving Jagged/Notch signaling including, *inter alia*, angiogenesis, differentiation, and control of gene expression.